# FCC Information and Copyright

This equipment has been tested and found to comply with the limits of a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. There is no guarantee that interference will not occur in a particular installation.

## Table of Contents

# CHAPTER 1: INTRODUCTION

## 1.1 BEFORE YOU START

Thank you for choosing our product. Before you start installing the motherboard, please make sure you follow the instructions below:

- Prepare a dry and stable working environment with sufficient lighting.
- Always disconnect the computer from power outlet before operation.
- Before you take the motherboard out from anti-static bag, ground yourself properly by touching any safely grounded appliance, or use grounded wrist strap to remove the static charge.
- Avoid touching the components on motherboard or the rear side of the board unless necessary. Hold the board on the edge, do not try to bend or flex the board.
- Do not leave any unfastened small parts inside the case after installation. Loose parts will cause short circuits which may damage the equipment.
- Keep the computer from dangerous area, such as heat source, humid air and water.

## 1.2 PACKAGE CHECKLIST

- HDD Cable X 1
- Rear I/O Panel for ATX Case X 1
- Installation Guide X 1
- Fully Setup Driver CD X 1 (full version manual files inside)
- Serial ATA Cable X 1
- FDD Cable X 1 (optional)
- Serial ATA Power Cable X 1 (optional)
- USB 2.0 Cable X1 (optional)
- S/PDIF out Cable X 1 (optional)

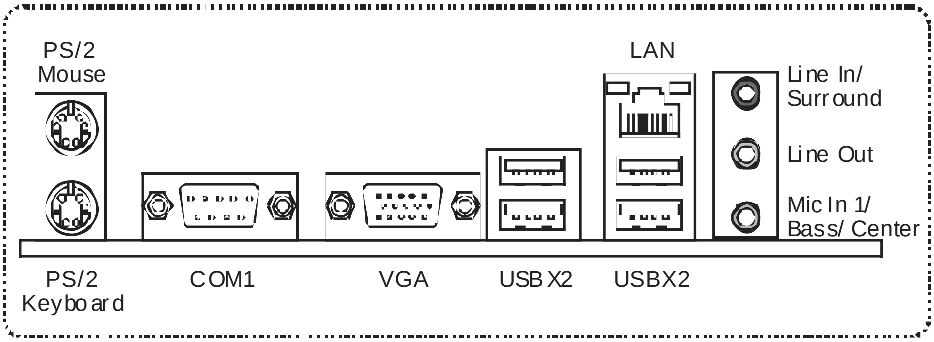
***Note:*** The package contents may differ by area or your motherboard version.

## 1.3 MOTHERBOARD FEATURES

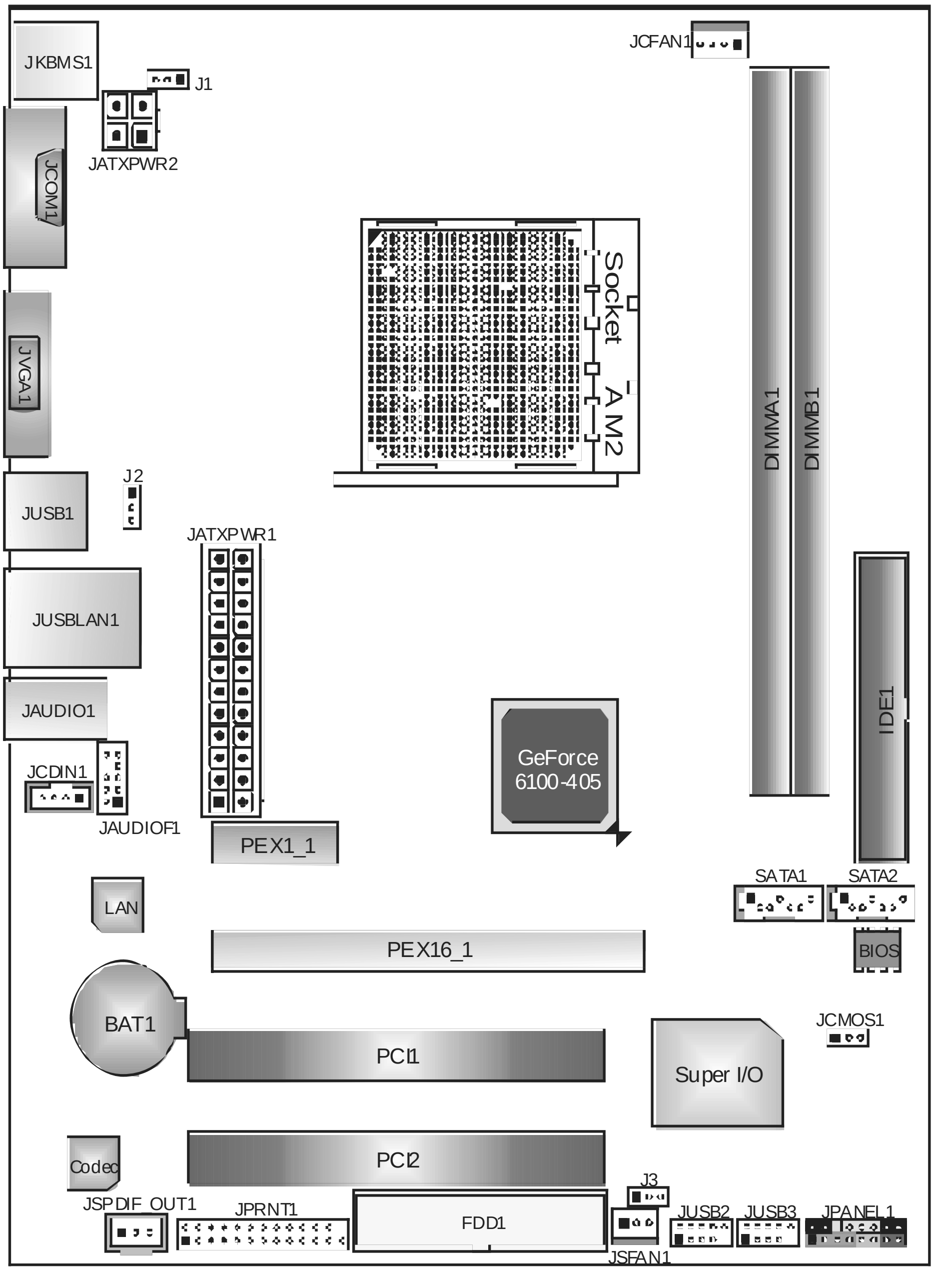
| SPEC | | |
|---|---|---|
| CPU | Socket AM2<br>AMD Athlon 64 / Athlon 64 FX / Athlon 64 X2<br>/ Sempron processors | AMD 64 Architecture enables 32 and 64 bit computing<br>Supports Hyper Transport and Cool-n-Quiet |
| FSB | Supports up to 1GHz Bandwidth<br>Support HyperTransport | |
| Chipset | GeForce 6100-405 | |
| Super I/O | ITE 8716F<br>Provides the most commonly used legacy Super I/O functionality.<br>Low Pin Count Interface | Environment Control initiatives,<br>H/W Monitor<br>Fan Speed Controller<br>ITE's "Smart Guardian" function |
| Main Memory | DIMM Slots x 2<br>Each DIMM supports 256/512MB/1GB/2GB DDR2<br>Max Memory Capicity 4GB | Dual Channel Mode DDR2 memory module<br>Supports DDR2 400 / 533 / 667 / 800<br>Registered DIMM and ECC DIMM is not supported |
| Graphics | GeForce 6100-405 | Max Shared Video Memory is 256MB |
| IDE | Integrated IDE Controller | Ultra DMA 33 / 66 / 100 / 133 Bus Master Mode<br>supports PIO Mode 0~4 |
| SATA II | Integrated Serial ATA Controller | Data transfer rates up to 3.0 Gb/s.<br>SATA Version 2.0 specification compliant. |
| LAN | Realtek 8201CL PHY | 10 / 100 Mb/s Auto-Negotiation<br>Half / Full duplex capability |
| Sound | ALC662 | 5.1 channels audio out<br>High-Definition Audio support |
| Slots | PCI slot x2<br>PCI Express x16 slot x1<br>PCI Express x 1 slot x1 | Supports PCI expansion cards<br>Supports PCI-E x16 expansion cards<br>Supports PCI-E x1 expansion cards |
| On Board Connector | Floppy connector x1<br>IDE Connector x1<br>SATA2 Connector x2<br>Front Panel Connector x1<br>Front Audio Connector x1 | Each connector supports 2 Floppy drives<br>Each connector supports 2 IDE device<br>Each connector supports 1 SATA devices<br>Supports front panel facilities<br>Supports front panel audio function |

| | | | |
|---|---|---|---|
| | ***SPEC*** | | |
| | CD-in Connector | x1 | Supports CD audio-in function |
| | S/PDIF out connector | x1 | Supports digital audio out function |
| | CPU Fan header | x1 | CPU Fan power supply (with Smart Fan function) |
| | System Fan header | x1 | System Fan Power supply |
| | CMOS clear header | x1 | Restore CMOS data to factory default |
| | USB connector | x2 | Each connector supports 2 front panel USB ports |
| | Printer Port Connector | x1 | Each connector supports 1 Printer port |
| | Power Connector (24pin) | x1 | Connects to Power supply |
| | Power Connector (4pin) | x1 | Connects to Power supply |
| Back Panel I/O | PS/2 Keyboard | x1 | Connects to PS/2 Keyboard |
| | PS/2 Mouse | x1 | Connects to PS/2 Mouse |
| | Serial Port | x1 | Provide RS-232 Serial connection |
| | VGA port | x1 | Connects to monitor. |
| | LAN port | x1 | Connects to RJ-45 ethernet cable |
| | USB Port | x4 | Connects to USB devices |
| | Audio Jack | x3 | Provide Audio-In/Out and microphone connection |
| Board Size | 190 mm (W) x 244 mm (L) | | Micro ATX Size Board |
| Special Features | RAID 0 / 1 support | | |
| OS Support | Windows 2000 / XP / VISTA | | Biostar Reserves the right to add or remove support for any OS With or without notice. |

## 1.4 Rear Panel Connectors



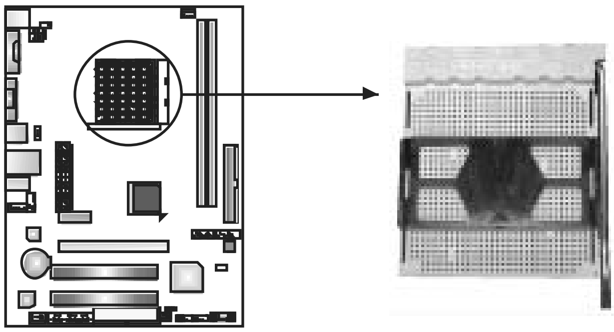
## 1.5 MOTHERBOARD LAYOUT



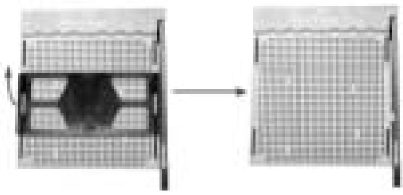

***Note:*** ■ represents the 1st pin.

# CHAPTER 2: HARDWARE INSTALLATION

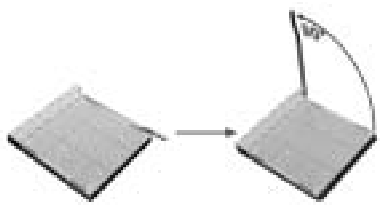
## 2.1 INSTALLING CENTRAL PROCESSING UNIT (CPU)



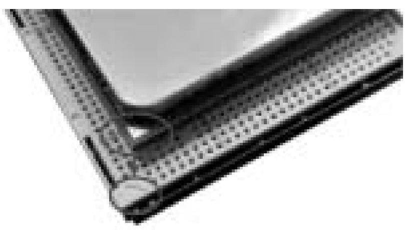
**Step 1:** Remove the socket protection cap.



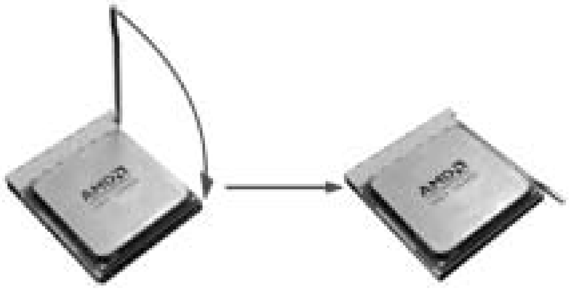
**Step 2:** Pull the lever toward direction A from the socket and then raise the lever up to a 90-degree angle.



**Step 3:** Look for the white triangle on socket, and the gold triangle on CPU should point towards this white triangle. The CPU will fit only in the correct orientation.



**Step 4:** Hold the CPU down firmly, and then close the lever toward direct B to complete the installation.

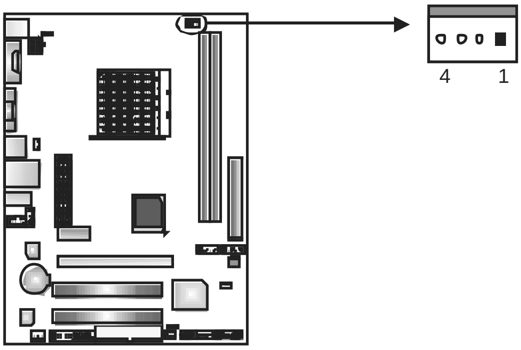


**Step 5:** Put the CPU Fan on the CPU and buckle it. Connect the CPU FAN power cable to the JCFAN1. This completes the installation.

## 2.2 FAN HEADERS

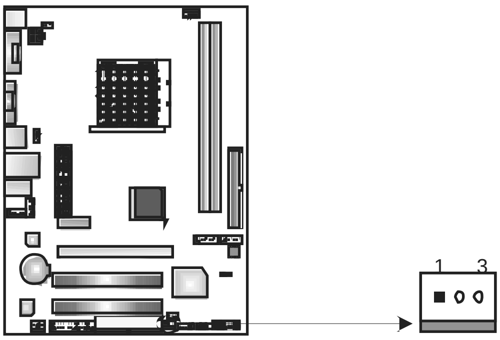
These fan headers support cooling-fans built in the computer. The fan cable and connector may be different according to the fan manufacturer. Connect the fan cable to the connector while matching the black wire to pin#1.

### JCFAN1: CPU Fan Header




| Pin | Assignment |
|---|---|
| 1 | Ground |
| 2 | +12V |
| 3 | FAN RPM rate sense |
| 4 | Smart Fan Control (By Fan) |

### JSFAN1: System Fan Header



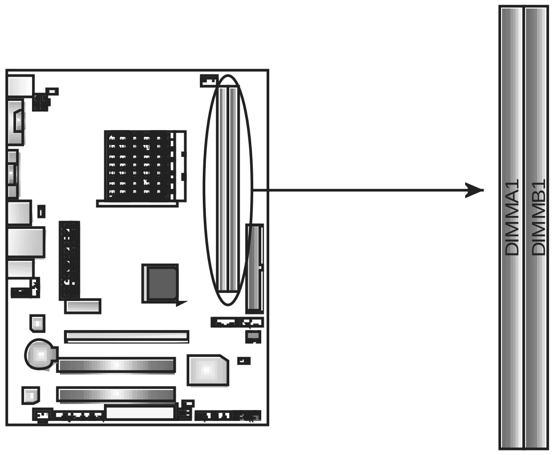

| Pin | Assignment |
|---|---|
| 1 | Ground |
| 2 | +12V |
| 3 | FAN RPM rate sense |

***Note:***

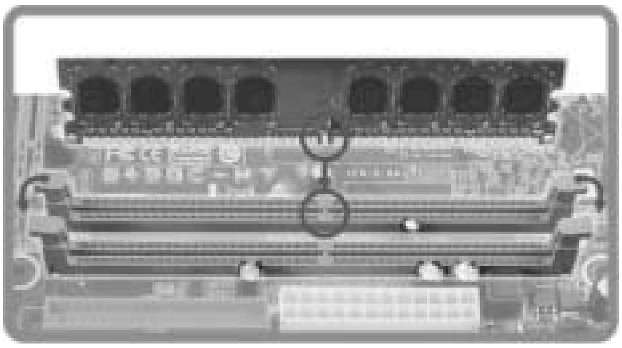
The JCFAN1 and JSFAN1 support 4-pin and 3-pin head connectors. When connecting with wires onto connectors, please note that the red wire is the positive and should be connected to pin#2, and the black wire is Ground and should be connected to GND.

## 2.3 INSTALLING SYSTEM MEMORY

### *A. Memory Modules*




1. Unlock a DIMM slot by pressing the retaining clips outward. Align a DIMM on the slot such that the notch on the DIMM matches the break on the Slot.



2. Insert the DIMM vertically and firmly into the slot until the retaining chip snap back in place and the DIMM is properly seated.



### *B. Memory Capacity*

| DIMM Socket Location | DDR Module | Total Memory Size |
|---|---|---|
| DIMMA1 | 256MB/512MB/1GB/2GB *1 | Max memory 4GB. |
| DIMMB1 | 256MB/512MB/1GB/2GB *1 | |

### *C. Dual Channel Memory installation*

To trigger the Dual Channel function of the motherboard, the memory module must meet the following requirements:

Install memory module of the same density in pair, shown in the following table.

| Dual Channel Status | DIMMA1 | DIMMB1 |
|---|---|---|
| Disabled | O | X |
| Disabled | X | O |
| Enabled | O | O |

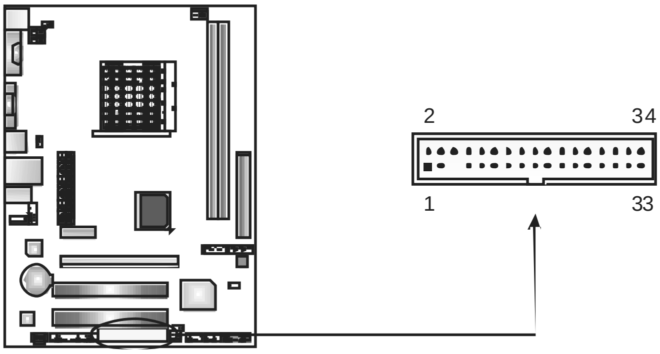
(O means memory installed, X means memory not installed.)

The DRAM bus width of the memory module must be the same (x8 or x16)

## 2.4 CONNECTORS AND SLOTS

### FDD1: Floppy Disk Connector

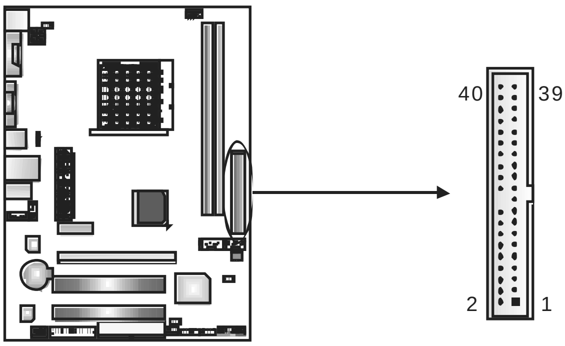
The motherboard provides a standard floppy disk connector that supports 360K, 720K, 1.2M, 1.44M and 2.88M floppy disk types. This connector supports the provided floppy drive ribbon cables.




### IDE1: Hard Disk Connector

The motherboard has a 32-bit Enhanced IDE Controller that provides PIO Mode 0~4, Bus Master, and Ultra DMA 33/66/100/133 functionality.

The IDE connector can connect a master and a slave drive, so you can connect up to two hard disk drives.

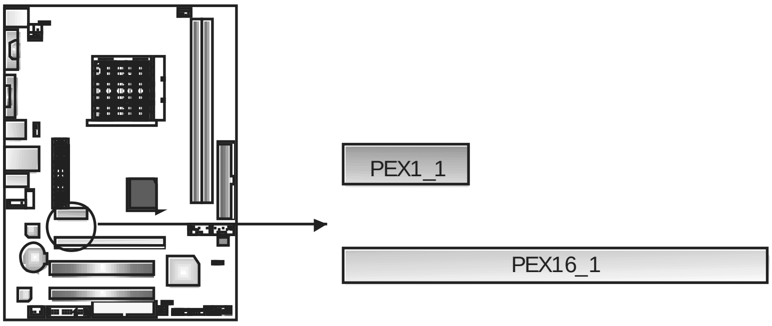


## PEX1_1: PCI-Express x1 Slot

- PCI-Express 1.0a compliant.
- Data transfer bandwidth up to 250MB/s per direction; 500MB/s in total.
- PCI-Express supports a raw bit-rate of 2.5Gb/s on the data pins.
- 2X bandwidth over the traditional PCI architecture.

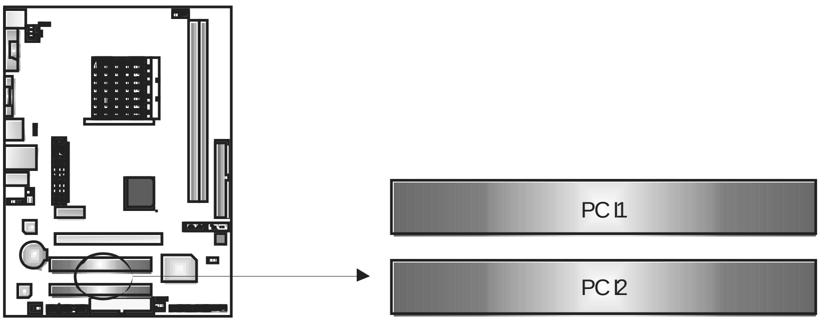
## PEX16_1: PCI-Express x16 Slot (x8 Speed)

- PCI-Express 1.0a compliant.
- Maximum theoretical realized bandwidth of 2GB/s simultaneously per direction, for an aggregate of 4GB/s totally.
- x8 Speed by Chipset Specification.




## PCI1/PCI2: Peripheral Component Interconnect Slots

This motherboard is equipped with 2 standard PCI slots. PCI stands for Peripheral Component Interconnect, and it is a bus standard for expansion cards. This PCI slot is designated as 32 bits.



# CHAPTER 3: HEADERS & JUMPERS SETUP

## 3.1 HOW TO SETUP JUMPERS

The illustration shows how to set up jumpers. When the jumper cap is placed on pins, the jumper is "close", if not, that means the jumper is "open".


Pin opened

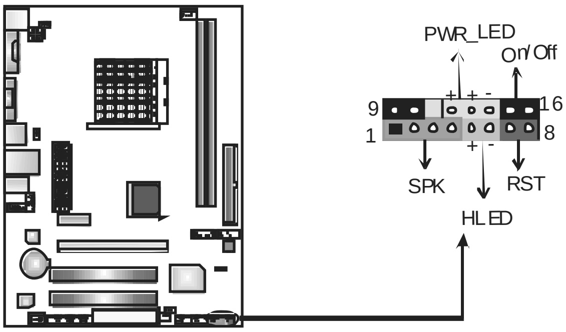

Pin closed


Pin1-2 closed

## 3.2 DETAIL SETTINGS

### JPANEL1: Front Panel Header

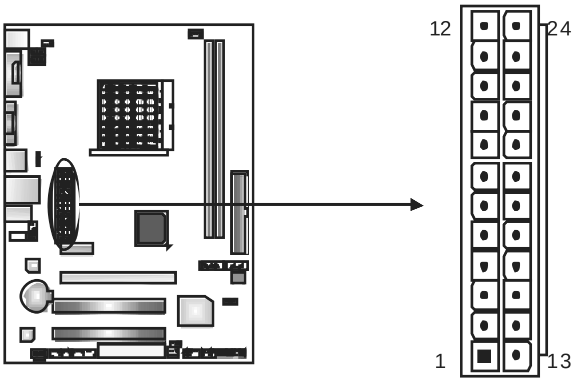
This 16-pin connector includes Power-on, Reset, HDD LED, Power LED, and speaker connection. It allows user to connect the PC case's front panel switch functions.




| Pin | Assignment | Function | Pin | Assignment | Function |
|---|---|---|---|---|---|
| 1 | +5V | Speaker Connector | 9 | N/A | N/A |
| 2 | N/A | | 10 | N/A | |
| 3 | N/A | | 11 | N/A | N/A |
| 4 | Speaker | | 12 | Power LED (+) | Power LED |
| 5 | HDD LED (+) | Hard drive LED | 13 | Power LED (+) | |
| 6 | HDD LED (-) | | 14 | Power LED (-) | |
| 7 | Ground | Reset button | 15 | Power button | Power-on button |
| 8 | Reset control | | 16 | Ground | |

## JATXPWR1: ATX Power Source Connector

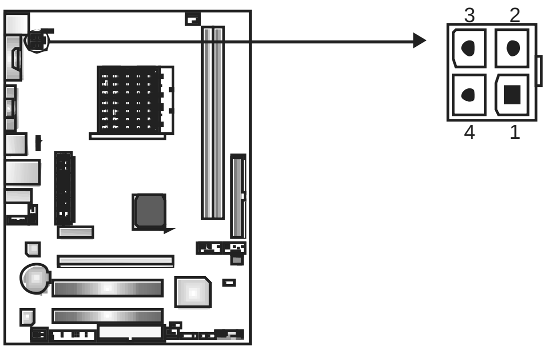
This connector allows user to connect 24-pin power connector on the ATX power supply.




| Pin | Assignment | Pin | Assignment |
|---|---|---|---|
| 13 | +3.3V | 1 | +3.3V |
| 14 | -12V | 2 | +3.3V |
| 15 | Ground | 3 | Ground |
| 16 | PS_ON | 4 | +5V |
| 17 | Ground | 5 | Ground |
| 18 | Ground | 6 | +5V |
| 19 | Ground | 7 | Ground |
| 20 | NC | 8 | PW_OK |
| 21 | +5V | 9 | Standby Voltage+5V |
| 22 | +5V | 10 | +12V |
| 23 | +5V | 11 | +12V |
| 24 | Ground | 12 | +3.3V |

## JATXPWR2: ATX Power Source Connector

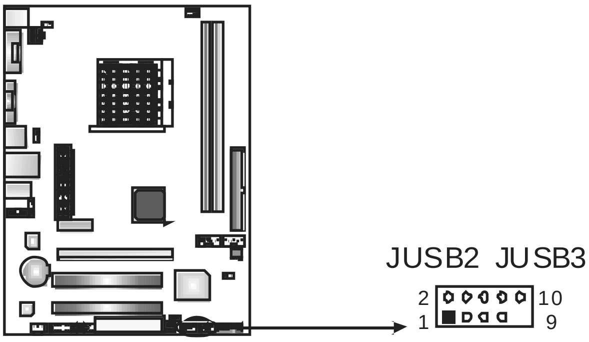
By connecting this connector, it will provide +12V to CPU power circuit.




| Pin | Assignment |
|---|---|
| 1 | +12V |
| 2 | +12V |
| 3 | Ground |
| 4 | Ground |

## JUSB2/JUSB3: Headers for USB 2.0 Ports at Front Panel

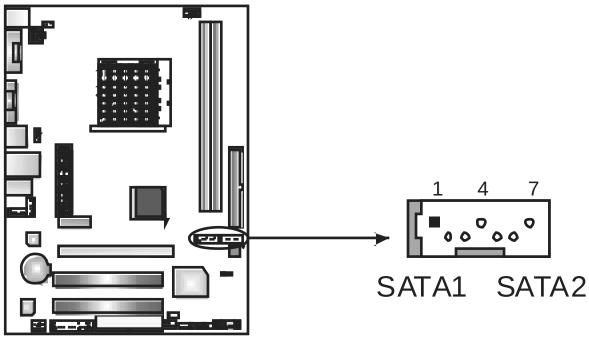
This header allows user to connect additional USB cable on the PC front panel, and also can be connected with internal USB devices, like USB card reader.




| Pin | Assignment |
|---|---|
| 1 | +5V (fused) |
| 2 | +5V (fused) |
| 3 | USB- |
| 4 | USB- |
| 5 | USB+ |
| 6 | USB+ |
| 7 | Ground |
| 8 | Ground |
| 9 | Key |
| 10 | NC |

## SATA1/SATA2: Serial ATA Connectors

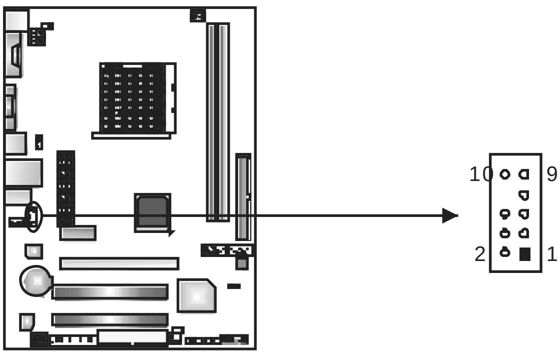
The motherboard has a PCI to SATA Controller with 2 channels SATA interface, it satisfies the SATA 2.0 spec and with transfer rate of 3.0Gb/s.




| Pin | Assignment |
|---|---|
| 1 | Ground |
| 2 | TX+ |
| 3 | TX- |
| 4 | Ground |
| 5 | RX- |
| 6 | RX+ |
| 7 | Ground |

## JAUDIOF1: Front Panel Audio Header

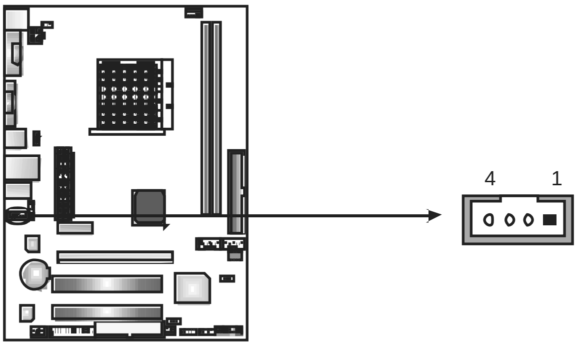
This header allows user to connect the front audio output cable with the PC front panel.




| Pin | Assignment |
|---|---|
| 1 | Mic Left in |
| 2 | Ground |
| 3 | Mic Right in |
| 4 | GPIO |
| 5 | Right line in |
| 6 | Jack Sense |
| 7 | Front Sense |
| 8 | Key |
| 9 | Left line in |
| 10 | Jack Sense |

## JCDIN1: CD-ROM Audio-in Connector

This connector allows user to connect the audio source from the variaty devices, like CD-ROM, DVD-ROM, PCI sound card, PCI TV turner card etc.




| Pin | Assignment |
|---|---|
| 1 | Left Channel Input |
| 2 | Ground |
| 3 | Ground |
| 4 | Right Channel Input |

## J2/J3: Power Source Headers for USB Ports

***Pin 1-2 Close:***

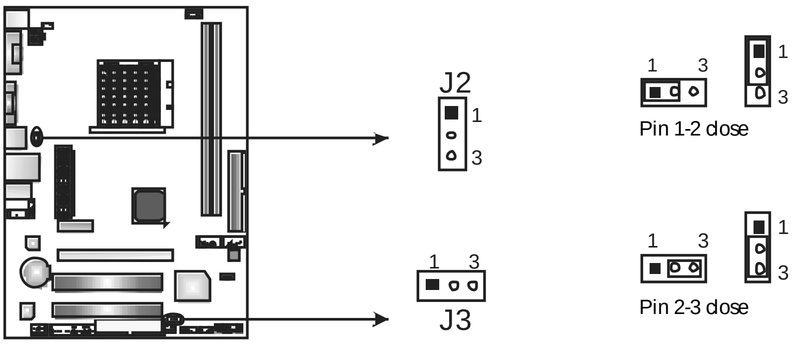
J2: +5V for USB ports at JUSB1/JUSBLAN1.

J3: +5V for USB ports at front panel (JUSB2/JUSB3).

***Pin 2-3 Close:***

J2: USB ports at JUSB1/JUSBLAN1 are powered by +5V standby voltage.

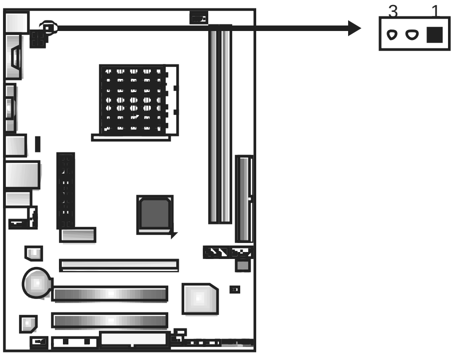
J3: USB ports at front panel (JUSB2/JUSB3) are powered by +5V standby voltage.

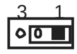



***Note:***

In order to support this function "Power-On system via USB device," "J2/ J3" jumper cap should be placed on Pin 2-3 individually.

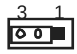
## J1: Power Source Header for PS/2 Keyboard and Mouse




Pin 1-2 close

+5V for PS/2 keyboard and mouse.




Pin 2-3 close

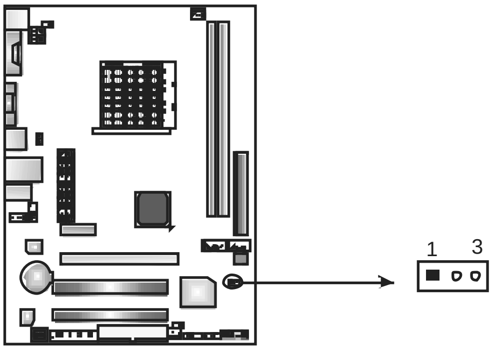
PS/2 keyboard and mouse are powered by +5V standby voltage.

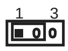
***Note:***

In order to support this function "Power-on system via keyboard and mouse", "J1" jumper cap should be placed on Pin 2-3.

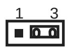
## JCMOS1: Clear CMOS Header

By placing the jumper on pin2-3, it allows user to restore the BIOS safe setting and the CMOS data, please carefully follow the procedures to avoid damaging the motherboard.




**Pin 1-2 Close:**
Normal Operation (default).



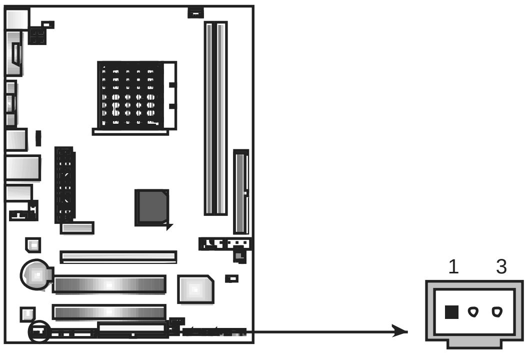

**Pin 2-3 Close:**
Clear CMOS data.

### ※ Clear CMOS Procedures:

1. Remove AC power line.
2. Set the jumper to "Pin 2-3 close".
3. Wait for five seconds.
4. Set the jumper to "Pin 1-2 close".
5. Power on the AC.
6. Reset your desired password or clear the CMOS data.

## JSPDIF_OUT1: Digital Audio-out Connector

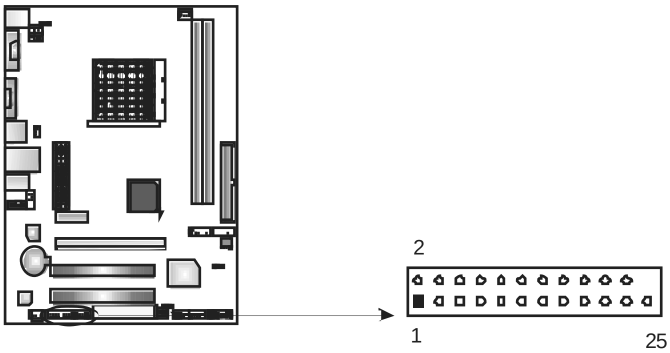
This connector allows user to connect the PCI bracket SPDIF output header.




| Pin | Assignment |
|---|---|
| 1 | +5V |
| 2 | SPDIF_OUT |
| 3 | Ground |

## JPRNT1: Printer Port Connector

This header allows you to connector printer on the PC.




| Pin | Assignment | Pin | Assignment |
|---|---|---|---|
| 1 | -Strobe | 14 | Ground |
| 2 | -ALF | 15 | Data 6 |
| 3 | Data 0 | 16 | Ground |
| 4 | -Error | 17 | Data 7 |
| 5 | Data 1 | 18 | Ground |
| 6 | -Init | 19 | -ACK |
| 7 | Data 2 | 20 | Ground |
| 8 | -Scltin | 21 | Busy |
| 9 | Data 3 | 22 | Ground |
| 10 | Ground | 23 | PE |
| 11 | Data 4 | 24 | Ground |
| 12 | Ground | 25 | SCLT |
| 13 | Data 5 | 26 | Key |

# CHAPTER 4: RAID FUNCTIONS

## 4.1 OPERATION SYSTEM

Supports Windows XP Home/Professional Edition, and Windows 2000 Professional.

## 4.2 RAID ARRAYS

RAID supports the following types of RAID arrays:

**RAID 0:** RAID 0 defines a disk striping scheme that improves disk read and write times for many applications.

**RAID 1:** RAID 1 defines techniques for mirroring data.

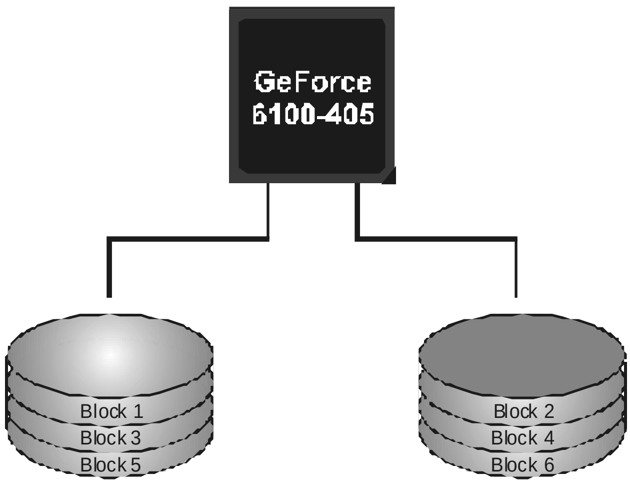
## 4.3 HOW RAID WORKS

***RAID 0:***

The controller "stripes" data across multiple drives in a RAID 0 array system. It breaks up a large file into smaller blocks and performs disk reads and writes across multiple drives in parallel. The size of each block is determined by the stripe size parameter, which you set during the creation of the RAID set based on the system environment. This technique reduces overall disk access time and offers high bandwidth.

**Features and Benefits**

- ***Drives:*** Minimum 1, and maximum is up to 6 or 8. Depending on the platform.
- ***Uses:*** Intended for non-critical data requiring high data throughput, or any environment that does not require fault tolerance.
- ***Benefits:*** provides increased data throughput, especially for large files. No capacity loss penalty for parity.
- ***Drawbacks:*** Does not deliver any fault tolerance. If any drive in the array fails, all data is lost.
- ***Fault Tolerance:*** No.



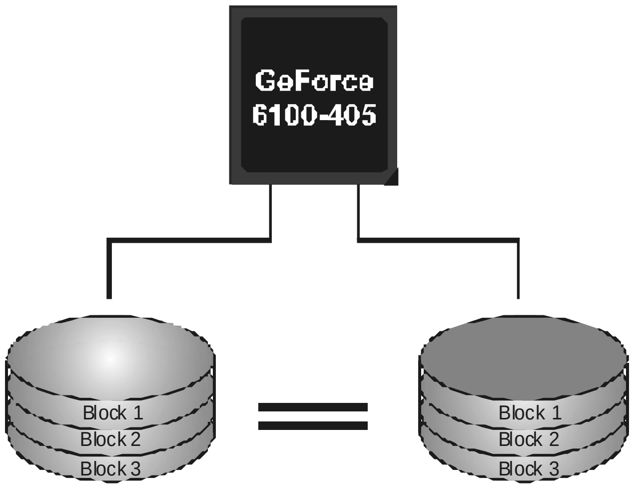
## RAID 1:

Every read and write is actually carried out in parallel across 2 disk drives in a RAID 1 array system. The mirrored (backup) copy of the data can reside on the same disk or on a second redundant drive in the array. RAID 1 provides a hot-standby copy of data if the active volume or drive is corrupted or becomes unavailable because of a hardware failure.

RAID techniques can be applied for high-availability solutions, or as a form of automatic backup that eliminates tedious manual backups to more expensive and less reliable media.

### Features and Benefits

- ***Drives:*** Minimum 2, and maximum is 2.
- ***Uses:*** RAID 1 is ideal for small databases or any other application that requires fault tolerance and minimal capacity.
- ***Benefits:*** Provides 100% data redundancy. Should one drive fail, the controller switches to the other drive.
- ***Drawbacks:*** Requires 2 drives for the storage space of one drive. Performance is impaired during drive rebuilds.
- ***Fault Tolerance:*** Yes.




※ **For more detailed setup information, please refer to the Driver CD, or go to** http://www.nvidia.com/object/IO_28159.html to download the NVIDIA RAID User's Guide.

# CHAPTER 5: USEFUL HELP

## 5.1 DRIVER INSTALLATION NOTE

After you installed your operating system, please insert the Fully Setup Driver CD into your optical drive and install the driver for better system performance.

You will see the following window after you insert the CD




The setup guide will auto detect your motherboard and operating system.

> **Note:**
> If this window didn't show up after you insert the Driver CD, please use file browser to locate and execute the file ***SETUP.EXE*** under your optical drive.

### A. Driver Installation

To install the driver, please click on the Driver icon. The setup guide will list the compatible driver for your motherboard and operating system. Click on each device driver to launch the installation program.

### B. Software Installation

To install the software, please click on the Software icon. The setup guide will list the software available for your system, click on each software title to launch the installation program.

### C. Manual

Aside from the paperback manual, we also provide manual in the Driver CD. Click on the Manual icon to browse for available manual.

> **Note:**
> You will need Acrobat Reader to open the manual file. Please download the latest version of Acrobat Reader software from
> ***http://www.adobe.com/products/acrobat/readstep2.html***

## 5.2 AWARD BIOS BEEP CODE

| Beep Sound | Meaning |
|---|---|
| One long beep followed by two short beeps | Video card not found or video card memory bad |
| High-low siren sound | CPU overheated<br>System will shut down automatically |
| One Short beep when system boot-up | No error found during POST |
| Long beeps every other second | No DRAM detected or install |

## 5.3 EXTRA INFORMATION

### *CPU Overheated*

If the system shutdown automatically after power on system for seconds, that means the CPU protection function has been activated.

When the CPU is over heated, the motherboard will shutdown automatically to avoid a damage of the CPU, and the system may not power on again.

In this case, please double check:

1. The CPU cooler surface is placed evenly with the CPU surface.
2. CPU fan is rotated normally.
3. CPU fan speed is fulfilling with the CPU speed.

After confirmed, please follow steps below to relief the CPU protection function.

1. Remove the power cord from power supply for seconds.
2. Wait for seconds.
3. Plug in the power cord and boot up the system.

Or you can:

1. Clear the CMOS data.
   (See “Close CMOS Header: JCMOS1” section)
2. Wait for seconds.
3. Power on the system again.

## 5.4 TROUBLESHOOTING

| Probable | Solution |
| --- | --- |
| 1. No power to the system at all Power light don't illuminate, fan inside power supply does not turn on.<br>2. Indicator light on keyboard does not turn on. | 1. Make sure power cable is securely plugged in.<br>2. Replace cable.<br>3. Contact technical support. |
| System inoperative. Keyboard lights are on, power indicator lights are lit, and hard drive is spinning. | Using even pressure on both ends of the DIMM, press down firmly until the module snaps into place. |
| System does not boot from hard disk drive, can be booted from optical drive. | 1. Check cable running from disk to disk controller board. Make sure both ends are securely plugged in; check the drive type in the standard CMOS setup.<br>2. Backing up the hard drive is extremely important. All hard disks are capable of breaking down at any time. |
| System only boots from optical drive. Hard disk can be read and applications can be used but booting from hard disk is impossible. | 1. Back up data and applications files.<br>2. Reformat the hard drive. Re-install applications and data using backup disks. |
| Screen message says "Invalid Configuration" or "CMOS Failure." | Review system's equipment. Make sure correct information is in setup. |
| Cannot boot system after installing second hard drive. | 1. Set master/slave jumpers correctly.<br>2. Run SETUP program and select correct drive types. Call the drive manufacturers for compatibility with other drives. |

# CHAPTER 6: WARPSPEEDER™ III

## 6.1 INTRODUCTION

[WarpSpeeder™ III], a new powerful control utility, features three user-friendly functions including Overclock Manager, Overvoltage Manager, and Hardware Monitor.

With the Overclock Manager, users can easily adjust the frequency they prefer or they can get the best CPU performance with just one click. The Overvoltage Manager, on the other hand, helps to power up CPU core voltage and Memory voltage. The cool Hardware Monitor smartly indicates the temperatures, voltage and CPU fan speed as well as the chipset information. Also, in the About panel, you can get detail descriptions about BIOS model and chipsets. In addition, the frequency status of CPU, memory, VGA and PCI along with the CPU speed are synchronically shown on our main panel.

Moreover, to protect users' computer systems if the setting is not appropriate when testing and results in system fail or hang, [WarpSpeeder™ III] technology assures the system stability by automatically rebooting the computer and then restart to a speed that is either the original system speed or a suitable one.

## 6.2 SYSTEM REQUIREMENT

OS Support: Windows 98 SE, Windows Me, Windows 2000, Windows XP, Windows Vista

DirectX: DirectX 8.1 or above. (The Windows XP operating system includes DirectX 8.1. If you use Windows XP, you do not need to install DirectX 8.1.)

## 6.3 INSTALLATION

1. Execute the setup execution file, and then the following dialog will pop up. Please click "Next" button and follow the default procedure to install.




2. When you see the following dialog in setup procedure, it means setup is completed. Click "Finish" button.




**Usage:**

The following figures are only for reference, the screen printed in this user manual will change according to your motherboard on hand.

## 6.4 WARPSPEEDER™ III

### 1. Desktop Icon

After the [WarpSpeeder™ III] has been installed, a [WarpSpeeder™ III] icon will appear on the desktop, just like the icon shown below.




Now you can launch the [WarpSpeeder™ III] utility simply by double-clicking the desktop icon.

### 2. Main Panel

If you double-click the desktop icon, [WarpSpeeder™ III] will be launched. Please refer to the following figure; the utility's first window you will see is Main Panel.

**Main Panel contains features as follows:**

a. Display the CPU Speed, CPU external clock, Memory clock, VGA clock, and PCI clock information.

b. Contains About, Voltage/Overclock, and Hardware Monitor Buttons for invoking respective panels. The On/Off button is for closing the program.



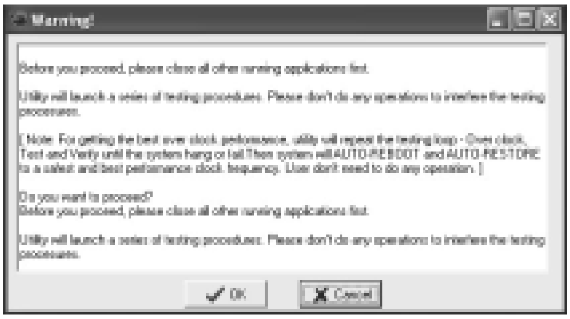
### 3. Overclock/Overvoltage Panel

Click the Overclock/Overvoltage button in the Main Panel, the button will be highlighted and the Overclock/Overvoltage Panel will show up as the following figure. As you can see, the Overclock Panel is on the right side, and the Overvoltage Panel is on the left side.



**Overclock Panel contains these features:**

a. "Auto-Overclock":
User can click this button and [WarpSpeeder™ III] will set the best and stable performance and frequency automatically. A warning dialog as below will show up to notify you that the system may become unstable, click on "OK" to proceed.




Then [WarpSpeeder™ III] utility will execute a series of testing until system fail. Then system will do fail-safe reboot by using Watchdog function. After reboot, launch the [WarpSpeeder™ III] utility again and the utility will load the previously verified best and stable frequency.

b. "Verify":
If you use the "Manual Adjust" bar to adjust the CPU frequency, then you can click this button and [WarpSpeeder™ III] will proceed a testing for current frequency. If the testing is ok, then the current frequency will be saved into system registry. If the testing fails, system will do a fail-safe rebooting. After reboot, the [WarpSpeeder™ III] utility will restore to the hardware default setting.

> **Warning:**
> Manually overclock is potentially dangerous, especially when the overclocking percentage is over 110 %. We strongly recommend you verify every speed you overclock by click the Verify button. Or, you can just click Auto overclock button and let [WarpSpeeder™ III] automatically gets the best result for you.

c. "V3 Engine"/"V6 Engine"/"V9 Engine":
Provide user the ability to do real-time overclock adjustment.

d. "Recovery":
Click this button and the [WarpSpeeder™ III] utility will restore all values to the hardware default setting.

**Overvoltage Panel contains these features:**

a. "CPU Voltage":
This function allows user to adjust CPU voltage. Click on "+" to increase or "-" to decrease the CPU voltage.

b. "Memory Voltage":
This function allows user to adjust Memory voltage. Click on "+" to increase or "-" to decrease the Memory voltage.

### *4. Hardware Monitor Panel*

Click the Hardware Monitor button in Main Panel, the button will be highlighted and the Hardware Monitor panel will show up as the following figure.
In this panel, you can get the real-time status information of your system. The information will be refreshed every 1 second.



## 5. About Panel

Click the "about" button in Main Panel, the button will be highlighted and the About Panel will show up as the following figure.

In this panel, you can get model name and detail information in hints of all the chipset that are related to overclocking. You can also get the the version number of [WarpSpeeder™ III] utility.




**Note:**

Because the overclock, overvoltage, and hardware monitor features are controlled by several separate chipset, [WarpSpeeder™ III] divide these features to separate panels. If one chipset is not on board, the correlative button in Main panel will be disabled, but will not interfere other panels' functions. This property can make [WarpSpeeder™ III] utility more robust.

# APPENDENCIES: SPEC IN OTHER LANGUAGE

## GERMAN

| | *Spezifikationen* | |
|---|---|---|
| CPU | Sockel AM2<br>AMD Athlon 64 / Athlon 64 FX / Athlon 64 X2 / Sempron Prozessoren | Die AMD 64-Architektur unterstützt eine 32-Bit- und 64-Bit-Datenverarbeitung<br>Unterstützt Hyper Transport und Cool'n'Quiet |
| FSB | Unterstützt HyperTransport mit einer Bandbreite von bis zu 1 GHz | |
| Chipsatz | GeForce 6100-405 | |
| Super E/A | ITE 8716F<br>Bietet die häufig verwendeten alten Super E/A-Funktionen.<br>Low Pin Count-Schnittstelle | Umgebungskontrolle,<br>Hardware-Überwachung<br>Lüfterdrehzahl-Controller<br>"Smart Guardian"-Funktion von ITE |
| Arbeitsspeicher | DDR2 DIMM-Steckplätze x 2<br>Jeder DIMM unterstützt 256/512MB/1GB/2GB DDR2.<br>Max. 4GB Arbeitsspeicher | Dual-Kanal DDR2 Speichermodul<br>Unterstützt DDR2 400 / 533 / 667 / 800 registrierte DIMMs. ECC DIMMs werden nicht unterstützt. |
| Grafik | GeForce 6100-405 | Max. 256MB gemeinsam benutzter Videospeicher |
| IDE | Integrierter IDE-Controller | Ultra DMA 33 / 66 / 100 / 133 Bus Master-Modus<br>Unterstützt PIO-Modus 0~4, |
| SATA II | Integrierter Serial ATA-Controller | Datentransferrate bis zu 3Gb/s<br>Konform mit der SATA-Spezifikation Version 2.0. |
| LAN | Realtek 8201CL PHY | 10 / 100 Mb/s Auto-Negotiation<br>Halb-/Vollduplex-Funktion |
| Audio-Codec | ALC662 | 5.1-Kanal-Audioausgabe<br>Unterstützt High-Definition Audio |
| Steckplätze | PCI-Steckplatz x2<br>PCI Express x16-Steckplatz x1<br>PCI Express x 1-Steckplatz x1 | |
| Onboard-Anschluss | Diskettenlaufwerkanschluss x1<br>IDE-Anschluss x1<br>SATA2-Anschluss x2 | Jeder Anschluss unterstützt 2 Diskettenlaufwerke<br>Jeder Anschluss unterstützt 2 IDE-Laufwerke<br>Jeder Anschluss unterstützt 1 SATA-Laufwerk |

| Spezifikationen | | | |
|---|---|---|---|
| | Fronttafelanschluss | x1 | Unterstützt die Fronttafelfunktionen |
| | Front-Audioanschluss | x1 | Unterstützt die Fronttafel-Audioanschlussfunktion |
| | CD-IN-Anschluss | x1 | Unterstützt die CD Audio-In-Funktion |
| | S/PDIF- Ausgangsanschluss | x1 | Unterstützt die digitale Audioausgabefunktion |
| | CPU-Lüfter-Sockel | x1 | CPU-Lüfterstromversorgungsanschluss (mit Smart Fan-Funktion) |
| | System-Lüfter-Sockel | x1 | System-Lüfter-Stromversorgungsanschluss |
| | "CMOS löschen"-Sockel | x1 | |
| | USB-Anschluss | x2 | Jeder Anschluss unterstützt 2 Fronttafel-USB-Anschlüsse |
| | Druckeranschluss-Anschluss | x1 | Jeder Anschluss unterstützt 1 Druckeranschluss |
| | Stromanschluss (24-polig) | x1 | |
| | Stromanschluss (4-polig) | x1 | |
| Rückseiten-E/A | PS/2-Tastatur | x1 | |
| | PS/2-Maus | x1 | |
| | Serieller Anschluss | x1 | |
| | VGA-Anschluss | x1 | |
| | LAN-Anschluss | x1 | |
| | USB-Anschluss | x4 | |
| | Audioanschluss | x3 | |
| Platinengröße. | 190 mm (B) X 244 mm (L) | | |
| Sonderfunktionen | Unterstützt RAID 0 / 1 | | |
| OS-Unterstützung | Windows 2000 / XP / VISTA | | Biostar behält sich das Recht vor, ohne Ankündigung die Unterstützung für ein Betriebssystem hinzuzufügen oder zu entfernen. |

# FRANCE

| *SPEC* | | |
|---|---|---|
| UC | Socket AM2<br>Processeurs AMD Athlon 64 / Athlon 64 FX / Athlon 64 X2 / Sempron | L'architecture AMD 64 permet le calcul 32 et 64 bits<br>Prend en charge Hyper Transport et Cool'n'Quiet |
| Bus frontal | Prend en charge Hyper Transport jusqu'à une bande passante de 1 GHz | |
| Chipset | GeForce 6100-405 | |
| Super E/S | ITE 8716F<br>Fournit la fonctionnalité de Super E/S patrimoniales la plus utilisée.<br>Interface à faible compte de broches | Initiatives de contrôle environnementales,<br>Moniteur de matériel<br>Contrôleur de vitesse de ventilateur<br>Fonction "Gardien intelligent" de l'ITE |
| Mémoire principale | Fentes DDR2 DIMM x 2<br>Chaque DIMM prend en charge des DDR2 de 256/512 Mo et 1Go/2Go<br>Capacité mémoire maximale de 4 Go | Module de mémoire DDR2 à mode à double voie<br>Prend en charge la DDR2 400 / 533 / 667 / 800<br>Les DIMM à registres et DIMM avec code correcteurs d'erreurs ne sont pas prises en charge |
| Graphiques | GeForce 6100-405 | Mémoire vidéo partagée maximale de 256 Mo |
| IDE | Contrôleur IDE intégré | Mode principale de Bus Ultra DMA 33 / 66 / 100 / 133<br>Prend en charge le mode PIO 0~4, |
| SATA II | Contrôleur Serial ATA intégré : | Taux de transfert jusqu'à 3 Go/s.<br>Conforme à la spécification SATA Version 2.0 |
| LAN | Realtek 8201CL PHY | 10 / 100 Mb/s négociation automatique<br>Half / Full duplex capability |
| Codec audio | ALC662 | Sortie audio à 5.1 voies<br>Prise en charge de l'audio haute définition |
| Fentes | Fente PCI x2<br>Slot PCI Express x16 x1<br>Slot PCI Express x 1 x1 | |
| Connecteur embarqué | Connecteur de disquette x1 | Chaque connector prend en charge 2 lecteurs de disquettes |
| | Connecteur IDE x1 | Chaque connecteur prend en charge 2 périphériques IDE |

| SPEC | | | |
|---|---|---|---|
| | Connecteur SATA2 | x2 | Chaque connecteur prend en charge 1 périphérique SATA |
| | Connecteur du panneau avant | x1 | Prend en charge les équipements du panneau avant |
| | Connecteur Audio du panneau avant | x1 | Prend en charge la fonction audio du panneau avant |
| | Connecteur d'entrée CD | x1 | Prend en charge la fonction d'entrée audio de CD |
| | Connecteur de sortie S/PDIF | x1 | Prend en charge la fonction de sortie audio numérique |
| | Embase de ventilateur UC | x1 | Alimentation électrique du ventilateur UC (avec fonction de ventilateur intelligent) |
| | Embase de ventilateur système | x1 | Alimentation électrique du ventilateur système |
| | Embase d'effacement CMOS | x1 | |
| | Connecteur USB | x2 | Chaque connecteur prend en charge 2 ports USB de panneau avant |
| | Connecteur de Port d'imprimante | x1 | Chaque connector prend en charge 1 Port d'imprimante |
| | Connecteur d'alimentation (24 broches) | x1 | |
| | Connecteur d'alimentation (4 broches) | x1 | |
| E/S du panneau arrière | Clavier PS/2 | x1 | |
| | Souris PS/2 | x1 | |
| | Port série | x1 | |
| | Port VGA | x1 | |
| | Port LAN | x1 | |
| | Port USB | x4 | |
| | Fiche audio | x3 | |
| Dimensions de la carte | 190 mm (l) X 244 mm (H) | | |
| Fonctionnalités spéciales | Prise en charge RAID 0 / 1 | | |
| Support SE | Windows 2000 / XP / VISTA | | Biostar se réserve le droit d'ajouter ou de supprimer le support de SE avec ou sans préavis. |

# ITALIAN

| SPECIFICA | | |
|---|---|---|
| CPU | Socket AM2<br>Processori AMD Athlon 64 / Athlon 64 FX / Athlon 64 X2 / Sempron | L'architettura AMD 64 abilita la computazione 32 e 64 bit<br>Supporto di Hyper Transport e Cool'n'Quiet |
| FSB | Supporto di HyperTransport fino a1 GHz di larghezza di banda | |
| Chipset | GeForce 6100-405 | |
| Super I/O | ITE 8716F<br>Fornisce le funzionalità legacy Super I/O usate più comunemente.<br>Interfaccia LPC (Low Pin Count) | Funzioni di controllo dell'ambiente:<br>Monitoraggio hardware<br>Controller velocità ventolina<br>Funzione "Smart Guardian" di ITE |
| Memoria principale | Alloggi DIMM DDR 2 x 2<br>Ciascun DIMM supporta DDR 2 256/512MB/1GB/2GB<br>Capacità massima della memoria 4GB | Modulo di memoria DDR2 a canale doppio<br>Supporto di DDR2 400 / 533 / 667 / 800<br>DIMM registrati e DIMM ECC non sono supportati |
| Grafica | GeForce 6100-405 | La memoria video condivisa massima è di 256MB |
| IDE | Controller IDE integrato | Modalità Bus Master Ultra DMA 33 / 66 / 100 / 133<br>Supporto modalità PIO Mode 0-4 |
| SATA II | Controller Serial ATA integrato | Velocità di trasferimento dei dati fino a 3 Gb/s.<br>Compatibile specifiche SATA Versione 2.0. |
| LAN | Realtek 8201CL PHY | Negoziazione automatica 10 / 100 Mb/s<br>Capacità Half / Full Duplex |
| Codec audio | ALC662 | Uscita audio 5.1 canali<br>Supporto audio High-Definition (HD) |
| Alloggi | Alloggio PCI x2<br>Alloggio PCI Express x16 x1<br>Alloggio PCI Express x1 x1 | |
| Connettori su scheda | Connettore floppy x1<br>Connettore IDE x1<br>Connettore SATA2 x2 | Ciascun connettore supporta 2 unità Floppy<br>Ciascun connettore supporta 2 unità IDE<br>Ciascun connettore supporta 1 unità SATA |

| *SPECIFICA* | | | |
|---|---|---|---|
| | Connettore pannello frontale | x1 | Supporta i servizi del pannello frontale |
| | Connettore audio frontale | x1 | Supporta la funzione audio pannello frontale |
| | Connettore CD-in | x1 | Supporta la funzione input audio CD |
| | Connettore output S/PDIF | x1 | Supporta la funzione d'output audio digitale |
| | Collettore ventolina CPU | x1 | Alimentazione ventolina CPU (con funzione Smart Fan) |
| | Collettore ventolina sistema | x1 | Alimentazione ventolina di sistema |
| | Collettore cancellazione CMOS | x1 | |
| | Connettore USB | x2 | Ciascun connettore supporta 2 porte USB pannello frontale |
| | Connettore Porta stampante | x1 | Ciascun connettore supporta 1 Porta stampante |
| | Connettore alimentazione (24 pin) | x1 | |
| | Connettore alimentazione (4 pin) | x1 | |
| I/O pannello posteriore | Tastiera PS/2 | x1 | |
| | Mouse PS/2 | x1 | |
| | Porta seriale | x1 | |
| | Porta VGA | x1 | |
| | Porta LAN | x1 | |
| | Porta USB | x4 | |
| | Connettore audio | x3 | |
| Dimensioni scheda | 190 mm (larghezza) x 244 mm (altezza) | | |
| Caratteristiche speciali | Supporto RAID 0 / 1 | | |
| Sistemi operativi supportati | Windows 2000 / XP / VISTA | | Biostar si riserva il diritto di aggiungere o rimuovere il supporto di qualsiasi sistema operativo senza preavviso. |

## SPANISH

| *Especificación* | | |
|---|---|---|
| CPU | Conector AM2<br>Procesadores AMD Athlon 64 / Athlon 64 FX / Athlon 64 X2 / Sempron | La arquitectura AMD 64 permite el procesado de 32 y 64 bits<br>Soporta las tecnologías Hyper Transport y Cool'n'Quiet |
| FSB | Admite HyperTransport con un ancho de banda de hasta 1 GHz | |
| Conjunto de chips | GeForce 6100-405 | |
| Súper E/S | ITE 8716F<br>Le ofrece las funcionalidades heredadas de uso más común Súper E/S.<br>Interfaz de cuenta Low Pin | Iniciativas de control de entorno,<br>Monitor hardware<br>Controlador de velocidad de ventilador<br>Función "Guardia inteligente" de ITE |
| Memoria principal | Ranuras DIMM DDR2 x 2<br>Cada DIMM admite DDR de 256/512MB y 1GB/2GB<br>Capacidad máxima de memoria de 4GB | Módulo de memoria DDR2 de canal Doble<br>Admite DDR2 de 400 / 533 / 667 / 800<br>No admite DIMM registrados o DIMM compatibles con ECC |
| Gráficos | GeForce 6100-405 | Memoria máxima de vídeo compartida de 256MB |
| IDE | Controlador IDE integrado | Modo bus maestro Ultra DMA 33 / 66 / 100 / 133<br>Soporte los Modos PIO 0~4, |
| SATA II | Controlador ATA Serie Integrado | Tasas de transferencia de hasta 3 Gb/s.<br>Compatible con la versión SATA 2.0. |
| Red Local | Realtek 8201CL PHY | Negociación de 10 / 100 Mb/s<br>Funciones Half / Full dúplex |
| Códecs de sonido | ALC662 | Salida de sonido de 5.1 canales<br>Soporte de sonido de Alta Definición |
| Ranuras | Ranura PCI X2<br>Ranura PCI Express x16 X1<br>Ranura PCI express x 1 X1 | |
| Conectores en placa | Conector disco flexible X1<br>Conector IDE X1<br>Conector SATA2 X2 | Cada conector soporta 2 unidades de disco flexible<br>Cada conector soporta 2 dispositivos IDE<br>Cada conector soporta 1 dispositivos SATA |

| *Especificación* | | | |
|---|---|---|---|
| | Conector de panel frontal | X1 | Soporta instalaciones en el panel frontal |
| | Conector de sonido frontal | X1 | Soporta funciones de sonido en el panel frontal |
| | Conector de entrada de CD | X1 | Soporta función de entrada de sonido de CD |
| | Conector de salida S/PDIF | X1 | Soporta función de salida de sonido digital |
| | Cabecera de ventilador de CPU | X1 | Fuente de alimentación de ventilador de CPU (con función Smart Fan) |
| | Cabecera de ventilador de sistema | X1 | Fuente de alimentación de ventilador de sistema |
| | Cabecera de borrado de CMOS | X1 | |
| | Conector USB | X2 | Cada conector soporta 2 puertos USB frontales |
| | Conector Puerto de impresora | X1 | Cada conector soporta 1 Puerto de impresora |
| | Conector de alimentación (24 patillas) | X1 | |
| | Conector de alimentación (4 patillas) | X1 | |
| Panel trasero de E/S | Teclado PS/2 | X1 | |
| | Ratón PS/2 | X1 | |
| | Puerto serie | X1 | |
| | Puerto VGA | X1 | |
| | Puerto de red local | X1 | |
| | Puerto USB | X4 | |
| | Conector de sonido | X3 | |
| Tamaño de la placa | 190 mm. (A) X 244 Mm. (H) | | |
| Funciones especiales | Admite RAID 0 / 1 | | |
| Soporte de sistema operativo | Windows 2000 / XP / VISTA | | Biostar se reserva el derecho de añadir o retirar el soporte de cualquier SO con o sin aviso previo. |

## PORTUGUESE

| *ESPECIFICAÇÕES* | | |
|---|---|---|
| CPU | Socket AM2<br>Processadores AMD Athlon 64 / Athlon 64 FX / Athlon 64 X2 / Sempron | A arquitectura AMD 64 permite uma computação de 32 e 64 bits<br>Suporta as tecnologias Hyper Transport e Cool'n'Quiet |
| FSB | Suporta a tecnologia HyperTransport com uma largura de banda até 1 GHz | |
| Chipset | GeForce 6100-405 | |
| Especificação Super I/O | ITE 8716F<br>Proporciona as funcionalidades mais utilizadas em termos da especificação Super I/O.<br>Interface LPC (Low Pin Count). | Iniciativas para controlo do ambiente<br>Monitorização do hardware<br>Controlador da velocidade da ventoinha<br>Função "Smart Guardian" da ITE |
| Memória principal | Ranhuras DIMM DDR2 x 2<br>Cada módulo DIMM suporta uma memória DDR2 de 256/512 MB & 1 GB/2 GB<br>Capacidade máxima de memória: 4 GB | Módulo de memória DDR2 de canal duplo<br>Suporta módulos DDR2 400 / 533 / 667 / 800<br>Os módulos DIMM registados e os DIMM ECC não são suportados |
| Placa gráfica | GeForce 6100-405 | Memória de vídeo máxima partilhada: 256 MB |
| IDE | Controlador IDE integrado | Modo Bus master Ultra DMA 33 / 66 / 100 / 133<br>Suporta o modo PIO 0~4, |
| SATA II | Controlador Serial ATA integrado | Velocidades de transmissão de dados até 3 Gb/s.<br>Compatibilidade com a especificação SATA versão 2.0. |
| LAN | Realtek 8201CL PHY | Auto negociação de 10 / 100 Mb/s<br>Capacidade semi/full-duplex |
| Codec de som | ALC662 | Saída de áudio de 5.1 canais<br>Suporta a especificação High-Definition Audio |
| Ranhuras | Ranhura PCI x2<br>Ranhura PCI Express x16 x1<br>Ranhura PCI Express x 1 x1 | |
| Conectores na placa | Conector da unidade de disquetes x1<br>Conector IDE x1<br>Conector SATA2 x2 | Cada conector suporta 2 unidades de disquetes<br>Cada conector suporta 2 dispositivos IDE<br>Cada conector suporta 1 dispositivo SATA |

| ESPECIFICAÇÕES | | | |
|---|---|---|---|
| | Conector do painel frontal | x1 | Para suporte de várias funções no painel frontal |
| | Conector de áudio frontal | x1 | Suporta a função de áudio no painel frontal |
| | Conector para entrada de CDs | x1 | Suporta a entrada de áudio a partir de CDs |
| | Conector de saída S/PDIF | x1 | Suporta a saída de áudio digital |
| | Conector da ventoinha da CPU | x1 | Alimentação da ventoinha da CPU (com a função Smart Fan) |
| | Conector da ventoinha do sistema | x1 | Alimentação da ventoinha do sistema |
| | Conector para limpeza do CMOS | x1 | |
| | Conector USB | x2 | Cada conector suporta 2 portas USB no painel frontal |
| | Conector da para impressora | x1 | Cada conector suporta 1 Porta para impressora |
| | Conector de alimentação (24 pinos) | x1 | |
| | Conector de alimentação (4 pinos) | x1 | |
| Entradas/Saídas no painel traseiro | Teclado PS/2 | x1 | |
| | Rato PS/2 | x1 | |
| | Porta série | x1 | |
| | Porta VGA | x1 | |
| | Porta LAN | x1 | |
| | Porta USB | x4 | |
| | Tomada de áudio | x3 | |
| Tamanho da placa | 190 mm (L) X 244 mm (A) | | |
| Características especiais | Suporta as funções RAID 0 / 1 | | |
| Sistemas operativos suportados | Windows 2000 / XP / VISTA | | A Biostar reserva-se o direito de adicionar ou remover suporte para qualquer sistema operativo com ou sem aviso prévio. |

## POLISH

| SPEC | | |
|---|---|---|
| Procesor | Socket AM2<br>AMD Athlon 64 / Athlon 64 FX / Athlon 64 X2 / Sempron Procesory | Architektura AMD 64 umożliwia przetwarzanie 32 i 64 bitowe<br>Obsługa Hyper Transport oraz Cool'n'Quiet |
| FSB | Obsługa HyperTransport o szerokości pasma do1 GHz | |
| Chipset | GeForce 6100-405 | |
| Pamięć główna | Gniazda DDR2 DIMM x 2<br>Każde gniazdo DIMM obsługuje moduły 256/512MB oraz 1GB/2GB DDR2<br>Maks. wielkość pamięci 4GB | Moduł pamięci DDR2 z trybem podwójnego kanału<br>Obsługa DDR2 400 / 533 / 667 / 800<br>Brak obsługi Registered DIMM oraz ECC DIMM |
| Super I/O | ITE 8716F<br>Zapewnia najbardziej powszechne funkcje Super I/O.<br>Interfejs Low Pin Count | Funkcje kontroli warunków pracy,<br>Monitor H/W<br>Kontroler prędkości wentylatora<br>Funkcja ITE "Smart Guardian" |
| Grafika | GeForce 6100-405 | Maks. wielkość współdzielonej pamięci video wynosi 256MB |
| IDE | Zintegrowany kontroler IDE | Ultra DMA 33 / 66 / 100 / 133 Tryb Bus Master<br>obsługa PIO tryb 0~4, |
| SATA II | Zintegrowany kontroler Serial ATA | Transfer danych do 3 Gb/s.<br>Zgodność ze specyfikacją SATA w wersji 2.0. |
| LAN | Realtek 8201CL PHY | 10 / 100 Mb/s z automatyczną negocjacją szybkości<br>Działanie w trybie połowicznego/pełnego dupleksu |
| Kodek dźwiękowy | ALC662 | 5.1 kanałowe wyjście audio<br>Obsługa High-Definition Audio |
| Gniazda | Gniazdo PCI x2<br>Gniazdo PCI Express x16 x1<br>Gniazdo PCI Express x 1 x1 | |
| Złącza wbudowane | Złącze napędu dyskietek x1<br>Złącze IDE x1<br>Złącze SATA2 x2<br>Złącze panela przedniego x1<br>Przednie złącze audio x1 | Każde złącze obsługuje 2 napędy dyskietek<br>Każde złącze obsługuje 2 urządzenia IDE<br>Każde złącze obsługuje 1 urządzenie SATA<br>Obsługa elementów panela przedniego<br>Obsługa funkcji audio na panelu przednim |

| SPEC | | | |
|---|---|---|---|
| | Złącze wejścia CD | x1 | Obsługa funkcji wejścia audio CD |
| | Złącze wyjścia S/PDIF | x1 | Obsługa funkcji cyfrowego wyjścia audio |
| | Złącze główkowe wentylatora procesora | x1 | Zasilanie wentylatora procesora (z funkcją Smart Fan) |
| | Złącze główkowe wentylatora systemowego | x1 | Zasilanie wentylatora systemowego |
| | Złącze główkowe kasowania CMOS | x1 | |
| | Złącze USB | x2 | Każde złącze obsługuje 2 porty USB na panelu przednim |
| | Złącze Port drukarki | x1 | Każde złącze obsługuje 1 Port drukarki |
| | Złącze zasilania (24 pinowe) | x1 | |
| | Złącze zasilania (4 pinowe) | x1 | |
| Back Panel I/O | Klawiatura PS/2 | x1 | |
| | Mysz PS/2 | x1 | |
| | Port szeregowy | x1 | |
| | Port VGA | x1 | |
| | Port LAN | x1 | |
| | Port USB | x4 | |
| | Gniazdo audio | x3 | |
| Wymiary płyty | 190 mm (S) X 244 mm (W) | | |
| Funkcje specjalne | Obsługa RAID 0 / 1 | | |
| Obsluga systemu operacyjnego | Windows 2000 / XP / VISTA | | Biostar zastrzega sobie prawo dodawania lub odwoływania obsługi dowolnego systemu operacyjnego bez powiadomienia. |

# RUSSIAN

| *СПЕЦ* | | |
|---|---|---|
| CPU (центральный процессор) | Гнездо AM2<br>Процессоры AMD Athlon 64 / Athlon 64 FX / Athlon 64 X2 / Sempron | Архитектура AMD 64 разрешать обработка данных на 32 и 64 бит<br>Поддержка Hyper Transport и Cool'n'Quiet |
| FSB | Поддержка HyperTransport с пропускной способностью до1GГц | |
| Набор микросхем | GeForce 6100-405 | |
| Основная память | Слоты DDR2 DIMM x 2<br>Каждый модуль DIMM поддерживает 256/512МБ & 1ГБ/2ГБ DDR2<br>Максимальная ёмкость памяти 4 ГБ | Модуль памяти с двухканальным режимом DDR2<br>Поддержка DDR2 400 / 533 / 667 / 800<br>Не поддерживает зарегистрированные модули DIMM and ECC DIMM |
| Super I/O | ITE 8716F<br>Обеспечивает наиболее используемые действующие функциональные возможности Super I/O.<br>Интерфейс с низким количеством выводов | Инициативы по охране окружающей среды,<br>Аппаратный монитор<br>Регулятор скорости<br>Функция ITE "Smart Guardian" (Интеллектуальная защита) |
| Графика | GeForce 6100-405 | Максимальная совместно используемая видео память составляет 256 МБ |
| IDE | Встроенное устройство управления встроенными интерфейсами устройств | Режим "хозяина" шины Ultra DMA 33 / 66 / 100 / 133<br>Поддержка режима PIO 0~4, |
| SATA II | Встроенное последовательное устройство управления ATA | скорость передачи данных до 3 гигабит/с.<br>Соответствие спецификации SATA версия 2.0 |
| Локальная сеть | Realtek 8201CL PHY | Автоматическое согласование 10 / 100Мб/с<br>Частичная / полная дуплексная способность |
| Звуковой кодек | ALC662 | 5.1канальный звуковой выход<br>Звуковая поддержка High-Definition |
| Слоты | Слот PCI x2<br>Слот PCI Express x16 x1<br>Слот PCI Express x 1 x1 | |
| Встроенный разъём | Разъём НГМД x1 | Каждый разъём поддерживает 2 накопителя на гибких магнитных дисках |
| | Разъём IDE x1 | Каждый разъём поддерживает 2 встроенных интерфейса накопителей |
| | Разъём SATA2 x2 | Каждый разъём поддерживает 1 устройство SATA |

| СПЕЦ | | |
|---|---|---|
| | Разъём на лицевой панели x1 | Поддержка устройств на лицевой панели |
| | Входной звуковой разъём x1 | Поддержка звуковых функций на лицевой панели |
| | Разъём ввода для CD x1 | Поддержка функции ввода для CD |
| | Разъём вывода для S/PDIF x1 | Поддержка вывода цифровой звуковой функции |
| | Контактирующее приспособление вентилятора центрального процессора x1 | Источник питания для вентилятора центрального процессора (с функцией интеллектуального вентилятора) |
| | Контактирующее приспособление вентилятора системы x1 | Источник питания для вентилятора системы |
| | Открытое контактирующее приспособление CMOS x1 | |
| | USB-разъём x2 | Каждый разъём поддерживает 2 USB-порта на лицевой панели |
| | Разъём Порт подключения принтера x1 | Каждый разъём поддерживает 1 Порт подключения принтера |
| | Разъем питания (24 вывод) x1 | |
| | Разъем питания (4 вывод) x1 | |
| Задняя панель средств ввода-вывода | Клавиатура PS/2 x1<br>Мышь PS/2 x1<br>Последовательный порт x1<br>Порт VGA x1<br>Порт LAN x1<br>USB-порт x4<br>Гнездо для подключения наушников x3 | |
| Размер панели | 190 мм (Ш) X 244 мм (В) | |
| Специальные технические характеристики | Поддержка RAID 0/ 1 | |
| Поддержка OS | Windows 2000 / XP / VISTA | Biostar сохраняет за собой право добавлять или удалять средства обеспечения для OS с или без предварительного уведомления. |

# ARABIC

| المواصفات | | |
|---|---|---|
| وحدة المعالجة المركزية | مقبس AM2<br>معالجات AMD Athlon 64 / Athlon 64 FX / Athlon 64 X2 / Sempron | إجراء العمليات الحاسوبية بسرعة 32 و 64 بت AMD 64 تمكن تقنية<br>تدعم تقنية Hyper Transport و Cool'n'Quiet |
| النقل الأمامي الجانبي | تردد 1000 بتردد يصل إلى HyperTransport تدعم تقنية | |
| مجموعة الشرائح | GeForce 6100-405 | |
| الذاكرة الرئيسية | فتحة DDR2 DIMM عدد 2<br>سعة DDR2 تدعم ذاكرة من نوع DIMM تدعم كل فتحة<br>ميجا بايت و 1 / و 2 جيجا بايت 256/512<br>سعة ذاكرة قصوى 4 جيجا بايت | مزدوجة القناة DDR2 وحدة ذاكرة<br>سعات 400 / 533 / 667 / 800 ميجا بايت DDR2 تدعم الذاكرة من نوع<br>ECC وتلك التي لا تتوافق مع DIMM لا تدعم رقائق الذاكرة |
| Super I/O | ITE 8716F<br>الأكثر استخداماً. Super I/O توفر وظيفة<br>تدعم تقنية Low Pin Count Interface | وسائل التحكم في البيئة:<br>مراقب لمعرفة حالة الأجهزة<br>مراقب في سرعة المروحة<br>ITE من "Smart Guardian" وظيفة |
| بطاقة الرسومات | GeForce 6100-405 | ميجابايت 256 أقصى سعة للذاكرة الفيديو المشتركة |
| منفذ IDE | متكامل IDE متحكم | نقل بتقنية Ultra DMA 33 / 66 / 100 / 133<br>وضع رئيسي<br>دعم وضع PIO Mode 0~4 |
| SATA II | متكامل Serial ATA متحكم | نقل البيانات بسرعات تصل إلى 3 جيجابت/ثانية.<br>2.0. الإصدار SATA مطابقة لمواصفات |
| شبكة داخلية | Realtek 8201CL PHY | تفاوض تلقائي 100/10 ميجا بايت /ثانيو جيجا بت/ثاني<br>إمكانية النقل المزدوج الكامل/النصفي |
| كوديك الصوت | ALC662 | قنوات لخرج الصوت 5.1<br>تدعم تقنية الصوت على التعريف من |
| الفتحات | فتحة PCI عدد 2<br>فتحة PCI Express x16 عدد 1<br>فتحة PCI Express x 1 عدد 1 | |
| المنافذ على سطح اللوحة | منفذ محرك أقراص مرنة عدد 1<br>منفذ IDE عدد 1 | يدعم محركين للأقراص المرنة<br>IDE يدعم كل منفذ اثنين من أجهزة |

| المواصفات | | | |
|---|---|---|---|
| | منفذ SATA | عدد 2 | SATA يدعم كل منفذ واحد من أجهزة |
| | منفذ اللوحة الأمامية | عدد 1 | يدعم تجهيزات اللوحة الأمامية |
| | منفذ الصوت الأمامي | عدد 1 | يدعم وظيفة الصوت باللوحة الأمامية |
| | منفذ CD-IN | عدد 1 | يدعم وظيفة دخل صوت القرص المدمج |
| | منفذ خرج S/PDIF | عدد 1 | يدعم وظيفة خرج الصوت الرقمي |
| | وصلة مروحة وحدة المعالجة المركزية | عدد 1 | Smart Fan لتوصيل الطاقة لمروحة وحدة المعالجة مع وظيفة |
| | وصلة مروحة النظام | عدد 1 | لتوصيل الطاقة لمروحة النظام |
| | وصلة مسح CMOS | عدد 1 | |
| | منفذ USB | عدد 2 | بالوحة الأمامية USB يدعم كل منفذ قتحي |
| | منفذ طابعة | عدد 1 | |
| | منفذ توصيل الطاقة (24 دبوس) | عدد 1 | |
| | منفذ توصيل الطاقة (4 دبابيس) | عدد 1 | |
| منافذ دخل/خرج اللوحة الخلفية | لوحة مفاتيح PS/2 | عدد 1 | |
| | ماوس PS/2 | عدد 1 | |
| | منفذ تسلسلي | عدد 1 | |
| | منفذ VGA | عدد 1 | |
| | منفذ شبكة اتصال محلية | عدد 1 | |
| | منافذ USB | عدد 4 | |
| | مقبس صوت | عدد 3 | |
| مزايا خاصة | تدعم تقنية RAID 0 / 1 | | |
| حجم اللوحة | 190 مم (عرض) X 244 مم (ارتفاع) | | |
| دعم أنظمة التشغيل | Windows 2000 / XP / VISTA | | تحتفظ Biostar بحقها في إضافة أو إزالة الدعم لأي نظام تشغيل بإخطار أو بدون إخطار |

# JAPANESE

| 仕様 | | |
|---|---|---|
| CPU | Socket AM2<br>AMD Athlon 64 / Athlon 64 FX / Athlon 64 X2 / Sempron プロセッサ | AMD 64アーキテクチャでは、32ビットと64ビット計算が可能です<br>ハイパートランスポートとクールアンドクワイアットをサポートします |
| FSB | 1 GHzのバンド幅までハイパートランスポートをサポートします | |
| チップセット | GeForce 6100-405 | |
| メインメモリ | DDR2 DIMMスロット x 2<br>各DIMMは 256/512MB & 1GB/2GB DDR2をサポート<br>最大メモリ容量4GB | デュアル チャンネルモードDDR2メモリモジュール<br>DDR2 400 / 533 / 667 / 800をサポート<br>登録済みDIMMとECC DIMMはサポートされません |
| Super I/O | ITE 8716F<br>もっとも一般に使用されるレガシーSuper I/O機能を採用しています。<br>低ピンカウントインターフェイス | 環境コントロールイニシアチブ、<br>H/Wモニター<br>ファン速度コントローラ/ モニター<br>ITEの「スマートガーディアン」機能 |
| グラフィックス | GeForce 6100-405 | 最大の共有ビデオメモリは256MBです |
| IDE | 統合IDEコントローラ | Ultra DMA 33 / 66 / 100 / 133バスマスタモード<br>PIO Mode 0~4のサポート、 |
| SATA II | 統合シリアルATAコントローラ | 最高3 Gb/秒のデータ転送速度<br>SATAバージョン2.0仕様に準拠。 |
| LAN | Realtek 8201CL PHY | 10 / 100 Mb/秒のオートネゴシエーション<br>半/全二重機能 |
| サウンドCodec | ALC662 | 5.1チャンネルオーディオアウト<br>ハイデフィニションオーディオのサポート |
| スロット | PCIスロット x2<br>PCI Express x16スロット x1<br>PCI Express x 1スロット x1 | |
| オンボードコネクタ | フロッピーコネクタ x1<br>IDEコネクタ x1 | 各コネクタは2つのフロッピードライブをサポートします<br>各コネクタは2つのIDEデバイスをサポートします |

| 仕様 | | | |
|---|---|---|---|
| | SATAコネクタ | x2 | 各コネクタは1つのSATAデバイスをサポートします |
| | フロントパネルコネクタ | x1 | フロントパネル機能をサポートします |
| | フロントオーディオコネクタ | x1 | フロントパネルオーディオ機能をサポートします |
| | CDインコネクタ | x1 | CDオーディオイン機能をサポートします |
| | S/PDIFアウトコネクタ | x1 | デジタルオーディオアウト機能をサポートします |
| | CPUファンヘッダ | x1 | CPUファン電源装置(スマートファン機能を搭載) |
| | システムファンヘッダ | x1 | システムファン電源装置 |
| | CMOSクリアヘッダ | x1 | |
| | USBコネクタ | x2 | 各コネクタは2つのフロントパネルUSBポートをサポートします |
| | プリンタポートコネクタ | x1 | 各コネクタは1つのプリンタポートをサポートします |
| | 電源コネクタ(24ピン) | x1 | |
| | 電源コネクタ(4ピン) | x1 | |
| 背面パネルI/O | PS/2キーボード | x1 | |
| | PS/2マウス | x1 | |
| | シリアルポート | x1 | |
| | VGAポート | x1 | |
| | LANポート | x1 | |
| | USBポート | x4 | |
| | オーディオジャック | x3 | |
| ボードサイズ | 190 mm (幅) X 244 mm (高さ) | | |
| 特殊機能 | RAID 0 / 1 のサポート | | |
| OSサポート | Windows 2000 / XP / VISTA | | Biostarは事前のサポートなしにOSサポートを追加または削除する権利を留保します。 |

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